

AMENDMENT TO THE CLAIMS

The below listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An overflow row repair method, comprising:
retrieving a page of memory associated with a source table;
interrogating the page of memory to identify an overflow row;
unloading only the identified overflow row from the source table;
deleting the identified overflow row from the source table; and
loading the previously unloaded identified overflow row into the source table.
2. (Original) The method of claim 1, wherein the acts of retrieving and interrogating are repeated for each page of memory comprising the source table.
3. (Original) The method of claim 1, wherein the acts of retrieving and interrogating are repeated for less than all pages of memory comprising the source table.
4. (Original) The method of claim 1, wherein the source table further comprises an index.
5. (Original) The method of claim 1, wherein the act of retrieving comprises retrieving the page of memory from a buffer pool.
6. (Original) The method of claim 1, wherein the act of retrieving comprising retrieving the page of memory from a direct access storage device.

7. (Original) The method of claim 1, further comprising locking the source table before deleting the identified overflow row from the source table.
8. (Original) The method of claim 7, wherein the act of deleting comprises:
identifying a constraint associated with the identified overflow row;
disabling the identified constraint; and
deleting the identified overflow row from the source table.
9. (Original) The method of claim 8, further comprising locking a table associated with the identified constraint prior to the act of disabling.
10. (Original) The method of claim 8, wherein the act of disabling comprises dropping the identified constraint.
11. (Original) The method of claim 8, wherein the act of loading comprises:
inserting the previously deleted identified overflow row into the source table;
restoring the identified constraint; and
unlocking the source table.
12. (Original) The method of claim 11, wherein the act of unlocking the source table unlocks a table associated with the identified constraint.
13. (Original) The method of claim 9, wherein if the identified constraint is a deferred constraint, the table associated with the identified constraint is not locked.
14. (Original) The method of claim 1, wherein the act of unloading comprises executing a structured query language SELECT statement.

15. (Original) The method of claim 14, wherein the act of deleting comprises executing a structured query language DELETE statement.
16. (Original) The method of claim 14, wherein the act of loading comprises executing a structured query language INSERT statement.
17. (Currently Amended) An overflow row repair method, comprising:
 - retrieving one or more pages of memory associated with a source table;
 - interrogating the one or more pages of memory to identify one or more overflow rows;
 - unloading only a first portion of the identified overflow rows from the source table;
 - deleting the unloaded overflow rows from the source table; and
 - reloading the previously unloaded overflow rows into the source table.
18. (Original) The method of claim 17, wherein the act of retrieving comprises retrieving from a buffer pool.
19. (Original) The method of claim 17, wherein the act of retrieving comprises retrieving from a direct access storage device.
20. (Original) The method of claim 17, wherein the act of retrieving comprises retrieving one or more data pages associated with the source table.
21. (Original) The method of claim 17, further comprising locking the source table prior to the act of deleting.

22. (Original) The method of claim 21, further comprising:
identifying a constraint associated with at least one of the identified overflow rows; and
disabling the identified constraint.
23. (Original) The method of claim 22, wherein the act of disabling comprises
dropping the identified constraint.
24. (Original) The method of claim 22, further comprising locking a table associated
with the identified constraint prior to disabling the identified constraint.
25. (Original) The method of claim 22, wherein the act of reloading comprises:
inserting the previously unloaded overflow rows into the source table;
restoring the identified constraint; and
unlocking the source table and the table associated with the identified constraint.
26. (Original) The method of claim 25, wherein the act of restoring comprises
rebuilding the identified constraint.
27. (Original) The method of claim 17, wherein the acts of unloading, deleting and
reloading are repeated, wherein each iteration unloads, deletes and reloads a portion of
the identified overflow rows.
28. (Currently Amended) An overflow row repair method, comprising:
identifying an overflow row associated with a source table from a non-source
table data source;
unloading only the identified overflow row from the source table;
deleting the identified overflow row from the source table; and
reloading the previously deleted identified overflow row into the source table.

29. (Original) The method of claim 28, wherein the non-source table data source comprises a database log file.
30. (Original) The method of claim 28, wherein the source table further comprises an index.
31. (Original) The method of claim 28, further comprises locking the source table before deleting the identified overflow row from the source table.
32. (Original) The method of claim 31, further comprises unlocking the source table after the act of reloading the identified overflow row.
33. (Original) The method of claim 31, wherein the act of deleting comprises:
identifying a constraint associated with the identified overflow row;
disabling the identified constraint; and
deleting the identified overflow row from the source table.
34. (Original) The method of claim 33, wherein the act of disabling comprises locking a table associated with the identified constraint prior to the act of disabling the identified constraint.
35. (Original) The method of claim 34, wherein if the identified constraint is a deferred constraint, the table associated with the identified constraint is not locked.
36. (Original) The method of claim 33, wherein the act of disabling comprises deleting the identified constraint.

37. (Original) The method of claim 33, wherein the act of reloading comprises:
inserting the previously unloaded identified overflow rows into the source table;
restoring the identified constraint;
unlocking the source table.
38. (Original) The method of claim 37, wherein the act of restoring comprises
rebuilding the identified constraint.
39. (Original) The method of claim 28, wherein the acts of unloading, deleting and
loading are performed on a plurality of identified overflow rows at a time.
40. (Original) The method of claim 28, wherein the act of unloading comprises
executing a structured query language SELECT statement.
41. (Original) The method of claim 40, wherein the act of deleting comprises
executing a structured query language DELETE statement.
42. (Original) The method of claim 41, wherein the act of reloading comprises
executing a structured query language INSERT statement.
43. (Currently Amended) A program storage device, readable by a programmable
control device, comprising instructions stored on the program storage device for
causing the programmable control device to:
retrieve a page of memory associated with a source table;
interrogate the page of memory to identify an overflow row;
unload only the identified overflow row from the source table;
delete the identified overflow row from the source table; and
load the previously unloaded identified overflow row into the source table.

44. (Original) The program storage device of claim 43, wherein the instructions to retrieve and interrogate are repeated for each page of memory comprising the source table.
45. (Original) The program storage device of claim 43, wherein the instructions to retrieve and interrogate are repeated for less than all pages of memory comprising the source table.
46. (Original) The program storage device of claim 43, wherein the source table further comprises an index.
47. (Original) The program storage device of claim 43, wherein the instructions to retrieve comprise instructions to retrieve the page of memory from a buffer pool.
48. (Original) The program storage device of claim 43, wherein the instructions to retrieve comprise instructions to retrieve the page of memory from a direct access storage device.
49. (Original) The program storage device of claim 43, further comprising instructions to lock the source table before the instructions to delete the identified overflow row from the source table.
50. (Original) The program storage device of claim 49, wherein the instructions to delete comprise instructions to:
- identify a constraint associated with the identified overflow row;
 - disable the identified constraint; and
 - delete the identified overflow row from the source table.

51. (Original) The program storage device of claim 50, further comprising instructions to lock a table associated with the identified constraint prior to the instructions to disable.
52. (Original) The program storage device of claim 50, wherein the instructions to disable comprise instructions to drop the identified constraint.
53. (Original) The program storage device of claim 50, wherein the instructions to load comprise instructions to:
insert the previously deleted identified overflow row into the source table;
restore the identified constraint; and
unlock the source table.
54. (Original) The program storage device of claim 53, wherein the instructions to unlock the source table comprise instructions to unlock a table associated with the identified constraint.
55. (Original) The program storage device of claim 43, wherein the instructions to unload comprise a structured query language SELECT instruction.
56. (Original) The program storage device of claim 55, wherein the instructions to delete comprise a structured query language DELETE instruction.
57. (Original) The program storage device of claim 55, wherein the instructions to load comprises a structured query language INSERT statement.

58. (Currently Amended) A program storage device, readable by a programmable control device, comprising instructions stored on the program storage device for causing the programmable control device to:

identify an overflow row associated with a source table from a non-source table data source;

unload only the identified overflow row from the source table;

delete the identified overflow row from the source table; and

reload the previously deleted identified overflow row into the source table.

59. (Original) The program storage device of claim 58, wherein the non-source table data source comprises a database log file.

60. (Original) The program storage device of claim 58, wherein the source table further comprises an index.

61. (Original) The program storage device of claim 58, further comprising instructions to lock the source table before the instructions to delete the identified overflow row from the source table.

62. (Original) The program storage device of claim 61, further comprising instructions to unlock the source table after the instructions to reload the identified overflow row.

63. (Original) The program storage device of claim 61, wherein the instructions to delete comprise instructions to:

identify a constraint associated with the identified overflow row;

disable the identified constraint; and

delete the identified overflow row from the source table.

64. (Original) The program storage device of claim 63, wherein the instructions to disable comprise instructions to lock a table associated with the identified constraint prior to the instructions to disable the identified constraint.

65. (Original) The program storage device of claim 64, further comprising instructions to determine if the identified constraint is a deferred constraint and, if it is, not to lock the table associated with the identified constraint.

66. (Original) The program storage device of claim 63, wherein the instructions to disable comprise instructions to delete the identified constraint.

67. (Original) The program storage device of claim 63, wherein the instructions to reload comprise instructions to:

- insert the previously unloaded identified overflow rows into the source table;
- restore the identified constraint;
- unlock the source table.

68. (Original) The program storage device of claim 67, wherein the instructions to restore comprise instructions to rebuild the identified constraint.

69. (Original) The program storage device of claim 58, wherein the instructions to unload, delete and load are performed on a plurality of identified overflow rows at a time.

70. (Original) The program storage device of claim 58, wherein the instructions to unload comprise a structured query language SELECT instruction.

71. (Original) The program storage device of claim 70, wherein the instructions to delete comprise a structured query language DELETE instruction.

72. (Original) The program storage device of claim 71, wherein the instructions to reload comprise a structured query language INSERT instruction.